

A REPORT
UPON THE
Public Health of the Borough and
Port of Great Yarmouth,
FOR THE YEAR 1888,
COMPRISING SOME PARTICULARS OF
POPULATION, VITAL STATISTICS, CAUSES OF
DEATH AND LOCALITIES OF ZYMOTICS;
TOGETHER WITH
*The Numbers and Characters of the various Nuisances abated,
and a short account of the more*
IMPORTANT SANITARY MATTERS,

DEALT WITH BY THE U. & P.S.A. BY

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PRINTED BY ORDER OF THE SANITARY COMMITTEE OF THE CORPORATION.

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Great Yarmouth:

J. BUCKLE, STEAM PRINTER, KING STREET.

1889.

ENGLAND AND WALES DURING 1888.

Population estimated to the middle of the year	28,628,804
Registered Births	879,263
Registered Deaths	510,690
Annual rate of Births per 1000 of the population	30·6
Annual rate of Deaths per 1000 of the population	17·8
Excess of Births over Deaths	368,573
Estimated increase of population ..	384,231
Emigrants—English and Welsh ..	174,138

The death rates which had ranged in the seven preceding years from 19·6 in 1882 to the then unexampled low rate of 18·8 in 1887, further declined last year to 17·8, a considerably lower rate than that recorded in any previous year of civil registration, which commenced 1837. The recorded death rate in each of the eight years 1881—88 has been lower than the rate recorded in any year prior to 1881. The mean annual death rate in the first eight years of the current decennium (1881—90) did not exceed 19·1 and was 2·3 below the mean rate in the preceding ten years, 1871—80. This remarkable decline in the death rate implies that more than 500,000 persons in England and Wales were alive at the end of 1888, whose deaths would have been recorded during the eight years 1881—88, had the rate of mortality equalled that which prevailed during the ten years, 1871—80.

Registrar General's Report.

January 31st, 1889.



REPORT.

TO THE GREAT YARMOUTH URBAN SANITARY
AUTHORITY.

GENTLEMEN,

I respectfully submit for your consideration the following report upon the health of the Borough for the year 1888.

The estimation of our present POPULATION is by no means an easy or satisfactory matter. Trade and prosperity varies from year to year, and during decades the operation of these and other influences upon urban populations cause them to fluctuate so much, that to assume an increase in the present decennium of like ratio to that which was obtained between 1871 and 1881 may be very wide of the mark. The erection of new dwellings proceeds apace, and were the occupation of these accomplished without emptying the former tenements, our increase would be more than maintained. As it is, however, in very many instances, resident families merely shift their location, and it would be delusive to calculate the accommodation afforded by the acres of new houses put up in Southtown, on the North Denes, and elsewhere in the Borough, as indicative of the increment added to our population. For the first few

years after a census a reliable estimate may be made, but it is now generally conceded that, in urban districts especially, such estimation should not be trusted to longer than four years, and a census should be taken every fifth year. Unquestionably a quinquennial census would discover positive data of the very first importance in aid of sanitation.

Calculated upon the basis of the increase ascertained in 1881, I believe the population of the Borough in the middle of 1888 numbered 49,395, and by the end of the year a further increase to 49,614 had probably taken place.

There were registered within the Borough during the fifty-two weeks ending with December 29th, 1888—

1,653 BIRTHS and 1,002 DEATHS.

These figures applied to the estimated population for the middle of 1888 give the

BIRTH RATE as 33·46 per 1,000.

DEATH RATE as 20·28 per 1,000.

Of all the births 5·2 per cent. were illegitimate. This is above the average for England and Wales, which the Registrar General gives as 4·8 for 1887 and the ten previous years. The same authority, however, states that the percentage of such births were in all Suffolk 5·5 for 1887, and 5·8 as average for previous 10 years Norfolk 7·3 „ 7·5 „ „ „ And he speaks of this state of things “as usual” in Norfolk. To remark we are no worse than our neighbours, is not possibly the most satisfactory reply to this “soft impeachment,” but it is a condition of things outside practical sanitation. The rapidity with which infants of this class

die, however, is more within our domain, and I have frequently called your attention to, and contrasted their death rate with that of babes born in wedlock. On this occasion I am able to report that although the births of illegitimates were rather more numerous last year than in 1887, still the death rate was lighter. This seems to be due rather to the fewer children born within the previous twelve months than any real improvement in their condition or surroundings. The record for last year shows a death rate of 19·5 per cent. of illegitimate babes short of one year old, as compared with 17·4 per cent. of those of more fortunate birth.

The death rates in the three districts within the Borough did not vary so widely last year as in previous years. Inasmuch as Southtown is fast losing its rural character, its population much increasing, and the people living closer together, the death rate undoubtedly, will take urban form.

The figures stand thus—

In the Northern District the death rate was 20·8 per 1,000				
„	Southern	„	20·1	„
„	Gorleston & Southtown	„	19·2	„

At the Workhouse, in the Northern district, there were 68 deaths. At the public Hospital and the Royal Naval Asylum, in the Southern district, there were 16 and 14 deaths respectively, and sprinkled throughout the Borough there were 13 deaths of visitors and strangers.

The table on pages 12 and 13 is in accordance with the Local Government Board's direction, and exhibits many particulars as to ages and causes of death within your

Sanitary district during 1888. I have supplemented it by giving the totals of like particulars for several years past, so that comparison of the various years may be made.

The total number of deaths referred last year to the principal ZYMOTIC diseases amounted to 108, which I calculate as equivalent to a mortality of 2·18 per 1,000 persons living. These figures, with the chief of those given on previous pages, I here tabulate so as to bring them into contrast with the averages of the ten years last past. It is important to note that last year's gross death rate was rather above the average.

	Births.	Rate.	Deaths.	Rate.	Zymotic Deaths.	Rate.
During 1888.....	1653	33·46	1002	20·28	108	2·18
Average of ten } years, 1878-87 }	1590	33·19	959	20·03	126	2·63

In several previous reports I have given a table of the estimated populations, the birth rates, the death rates, and the Zymotic death rates of towns ranging from 40,000 to 65,000 inhabitants ; Yarmouth, in the latter respect, having about a mid-place amongst them. By means of this table you had an opportunity of judging the relative position Yarmouth held as to healthiness. I am unable to give such a table this year, inasmuch as the Registrar General has ceased to estimate the populations of the said towns, or to calculate their individual birth and death rates. “For,” says he, “it is recognized that, after “several years have elapsed since the taking of a census, “estimates of population in small communities are so

“ uncertain that they cannot be regarded with that amount
 “ of confidence which would justify their official recognition.”
 The Registrar General’s Quarterly Returns, however,
 furnish me with the materials for the following table,
 excepting the line of figures relating to Yarmouth alone,
 which is calculated upon returns made to me by the
 Registrars of the sub-districts within the borough.

Annual Death-rate per 1000 from all Causes and from several
 Zymotic Diseases, during 1888.

	All Causes.	Prncpl. Zymotic Diseas.	Small- pox.	Measles	Scarlet Fever	Diph- theria.	Whoop- ing Cough.	Fever.	Diarrhoea.
England and Wales	17·8	1·76	0·03	0·33	0·21	0·17	0·40	0·18	0·43
28 Great Towns ..	19·2	2·41	0·06	0·46	0·28	0·21	0·58	0·20	0·59
50 other Town distes. (including Yarmouth)	18·3	1·92	0·03	0·42	0·21	0·11	0·41	0·21	0·50
England & Wales, } less the 78 Towns }	16·9	1·36	0·02	0·23	0·17	0·15	0·30	0·16	0·30
Yarmouth (alone)	20·28	2·18	0·02	0·02	0·00	0·04	0·22	0·44	1·43

The first line of figures relates to England and Wales as a whole, *i.e.*, all urban and rural districts massed together ; the second line relates to London and the great centres of trade and commerce, wherein the conditions of health, in the aggregate, are generally considered most unfavourable ; the third line relates to the large urban districts, while the fourth line relates to all the small towns and the rural districts in which the conditions of life are most favourable.

It is a matter for regret that the death rate of this borough is in excess of that of either of the above groups,

and especially, that as regards fever and diarrhœa, we are in such an unfortunate position as the table shows.

For the first time for many years SCARLATINA is absent from the causes contributing to our last annual mortality. MEASLES, also, was well nigh as harmless. Both these diseases, however, caused illness in the town, and during the visiting season sundry importations of these maladies took place. In two instances of visitors from London, developing SCARLET FEVER after arrival here, removal to the Infectious Diseases Hospital was effected, and in both cases the patients, making good recoveries, expressed great satisfaction with the accommodation afforded them and the attention paid to them. How many mild cases occurred in families of this town, or the number of convalescents from those diseases that came to the sea-side, it is impossible to tell, but I am informed such instances were observed.

One death from SMALL POX occurred at the Infectious Diseases Hospital in the person of a babe five months old, unvaccinated. The disease was brought to us from sea by one of the Mission vessels. A fisherman from a Grimsby smack, during the last week in February, had been on board the Mission smack "Euston," whilst in the North Sea, for medical advice and remained there a day or two until the eruption appeared, when his malady was guessed at and he was promptly sent ashore to Grimsby. About a fortnight after the skipper and cabin boy of the "Euston" fell ill, and the vessel was then brought home. Every precaution was taken by re-vaccination and bathing all the others of the crew, and disinfecting their clothes. The vessel also was thoroughly cleansed, fumigated, and

re-painted, and all infected bedding destroyed. One man, however, although perfectly well himself, conveyed the disease home to his wife and child. This was the infant who died at the Infectious Diseases Hospital, whither the family had been conveyed. How the man managed to take the infection home remains a mystery, as the families of all the rest of the healthy members of the crew escaped untouched. There can be no doubt, however, some article was conveyed from the vessel to his home which had not undergone the cleansing and disinfecting we believed we had applied to every article the cabins contained. Altogether six persons took the disease, some having it severely, and, as mentioned above, one fatally, as the result of this one man's carelessness. Had it not been for the isolation afforded by your Infectious Diseases Hospital the malady would certainly have spread in the town, as I found the afflicted family living in a densely populated row in the centre of the town. By the end of April the last of these patients had recovered, and we began to congratulate ourselves upon having a clean bill of health wherewith to greet our sea-side summer visitors, when, unfortunately, the last days of June brought me information of two cases of Small Pox at Gorleston. Both patients were promptly removed to the Infectious Diseases Hospital, and every care taken with the cleaning and disinfecting of the homes they came from, and no extension of the disease took place. They had the disease severely and made good recoveries, but where these two persons (in no way related, living a considerable distance apart, and of totally different occupations), got the disease simultaneously from, seems very mysterious. One of them, when his hands were covered with scabs, remembered he

had boarded a foreign vessel at sea, in his capacity as interpreter, some ten days or a fortnight before he was taken ill, and the hands of the captain of that vessel were rough and scabby as his then were. At that moment he had no idea the foreign captain was recovering from Small Pox, but the sight of his own hands assured him that such was the case. The origin of the other case could not be conjectured even.

Of TYPHOID FEVER I have a far more serious tale to tell, not only on account of the deaths it caused, but also of the difficulty we experienced in dealing with it. This disease is by far the most pernicious of the infective class adult life in this town has to contend with. The insidious way it creeps about, showing itself quite as frequently in clean, wholesome houses as in those of more questionable character, and in the majority of instances visiting homes having no intercourse whatever with each other, puzzles one to say how it arises, whence it comes, or whither it goes. Notwithstanding all that has been done in recent years to improve the sewers in every possible manner, to close impure drinking water wells, to better pave and scavenger the town, to supervise the milk and food supply, and to suppress every discoverable nuisance prejudicial to health, yet the disease lingers.

Some would have us believe in Von Pettenkofer's theory of the influence of the "ground water" in originating and intensifying various infectious diseases; but can this be applied to Yarmouth? If so, the wonder is the mortality is not larger. Standing on a flat sand bank, only a few feet above high water mark, and well nigh surrounded by sea and river, the whole sub-soil of Yarmouth is so full of

water that it rises and falls with the tides.* But it has ever been so, and the tidal action of the ground water, in my opinion, assists in its own purification. It would be impossible to lower the ground water in such a sandy soil however much we might pump. The experiment has been vigorously tried in connection with the under-pinning of the Town Hall, and we find in proportion as the water is pumped up, so the soil and buildings standing thereon settle down. In fact, Yarmouth is afloat. DIARRHŒA is another scourge that has especially identified itself with this town. The enormous fatality it annually produces amongst infants has been standing to our discredit many a year. It crops up more particular towards the latter end of the summer, and its causes are as obscure as those of Typhoid. It would seem that both diseases flourish under like unsavoury conditions, therefore, the more wholesome in every particular the homes of the people and their surroundings are kept, the less chance there is of these infectious diseases gaining a foot-hold. Your endeavours are constantly to accomplish this, but I would urge yet greater energy.

The localities in which the Zymotic deaths occurred last year have been subjected to a careful inspection, and any work, public or private, calculated to improve the health of the inhabitants has been reported to you as desirable to be done.

* "I was quite tired, and very glad, when we saw Yarmouth. It looked rather spongy and sloppy, I thought, as I carried my eye over the great dull waste that lay across the river, and I could not help wondering if the world were really as round as my geography book said, how any part of it came to be so flat. But I reflected that Yarmouth might be situated at one of the poles, which would account for it. As we drew a little nearer, and saw the whole adjacent prospect lying a straight low line under the sky, I hinted to Peggotty that a mound or so might have improved it; and also that if the land had been a little more separated from the sea, and the town and the tide had not been quite so mixed up, like toast and water, it would have been nicer."

DAVID COPPERFIELD.

TABLE OF

During the year 1888, in the Urban Sanitary District of Great
LOCALITIES, and showing also the Population of

Names of Localities adopted for the purposes of these Statistics. 1.	Population of all Ages.		Registered Births. 4.	Mortality from all causes, at sub- joined ages.						
	Census 1881. 2.	Estimated to middle of 1888. 3.		At all ages. 5.	Under 1 year. 6.	1 and under 5. 7.	5 and under 15. 8.	15 and under 25. 9.	25 and under 60. 10.	60 and upwards. 11.
NORTH DISTRICT	20,612	21,302	678	445	114	44	14	17	106	150
SOUTH DISTRICT	16,601	17,393	555	351	106	19	10	15	111	90
GORLESTON & SOUTHTOWN	9,001	10,700	420	206	70	19	4	11	41	61
TOTALS ..	46,214	49,395	1653	1002	296	82	28	43	258	301

1887—Estimated to middle of year	}	48,957	1,566	986	265	129	31	57	214	290
1886		48,519	1,702	1087	348	123	25	42	221	328
1885		48,081	1,600	915	222	102	39	46	233	273
1884		47,640	1,683	1017	301	133	43	43	233	264
1883		47,202	1,564	904	232	86	35	41	206	304
1882		46,762	1,525	953	267	143	37	40	199	267
1881—Per Census		46,214	1,580	889	245	108	30	37	219	250
1880—Corrected Estimate		45,775	1,561	959	293	121	40	31	209	265
1879		45,335	1,568	830	213	89	45	32	213	238

DEATHS.

Yarmouth, classified according to **DISEASE, AGE,** and such Localities, and the Births therein during the year.

Mortality from subjoined causes. distinguishing Deaths of Children under Five Years of age.																						
12.	Smallpox.	Measles.	Scarlatina.	Diphtheria.	Croup (not "spasmodic")	Whooping Cough	Cond. Fevers			Diarrhoea and Dysentery.	Cholera.	Rheumatic Fever	Erysipelas.	Pyæmia.	Puerperal Fever.	Ague.	Phthisis.	Bronchitis, Pneumonia & Pleurisy.	Heart Disease.	Injuries.	All other Diseases	
							Typhus	Enteric or Typhoid.	Other or Doubtful.													
13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.	31.	32.	33.		
Under 5	1	1	—	1	2	6	—	0	0	32	—	0	0	—	0	—	5	25	1	1	83	
5 upwds	0	0	—	0	0	0	—	7	1	3	—	2	1	—	2	—	26	54	23	13	155	
Under 5	—	—	—	0	3	5	—	0	0	22	—	—	1	—	0	—	4	17	0	1	72	
5 upwds	—	—	—	1	0	0	—	10	2	2	—	—	0	—	1	—	22	36	26	15	111	
Under 5	—	—	—	—	2	—	—	0	—	11	—	—	1	—	—	—	0	13	0	3	59	
5 upwds	—	—	—	—	0	—	—	2	—	1	—	—	0	—	—	—	12	18	13	7	64	
Under 5	1	1	—	1	7	11	—	0	0	65	—	0	2	—	0	—	9	55	1	5	214	
5 upwds	0	0	—	1	0	0	—	19	3	6	—	2	1	—	3	—	60	108	62	35	330	
Under 5	—	25	4	2	8	14	0	4	—	42	0	0	1	2	0	—	1	92	1	6	192	
5 upwds	—	0	3	0	3	2	1	18	—	1	1	1	3	1	5	—	64	87	66	42	294	
Under 5	—	11	14	2	5	28	—	0	0	89	—	2	1	—	0	—	2	54	1	12	250	
5 upwds	—	1	4	1	0	0	—	14	1	6	—	3	4	—	2	—	54	102	49	23	352	
Under 5	—	6	8	7	6	5	—	2	0	32	—	0	2	0	0	—	2	50	2	6	196	
5 upwds	—	0	1	1	6	0	—	42	2	4	—	2	6	1	1	—	72	83	56	22	292	
Under 5	0	31	0	10	17	19	—	0	0	62	4	0	3	—	0	—	3	66	0	1	221	
5 upwds	1	3	1	4	6	0	—	18	1	2	2	5	4	—	2	—	68	70	69	24	300	
Under 5	—	—	1	3	21	9	—	1	1	35	—	—	1	—	—	—	2	45	0	3	197	
5 upwds	—	—	2	2	7	0	—	6	0	6	—	—	2	—	—	—	67	74	51	31	337	
Under 5	—	17	6	0	4	16	—	1	—	78	—	1	0	—	0	—	5	83	0	1	198	
5 upwds	—	1	1	1	2	0	—	8	—	5	—	2	11	—	4	—	57	56	59	28	308	
Under 5	1	16	15	2	3	4	—	2	1	46	—	0	0	2	0	—	0	65	0	3	194	
5 upwds	5	1	6	2	2	1	—	7	1	4	—	1	9	3	9	—	59	69	46	32	278	
Under 5	—	3	30	3	11	14	—	1	0	89	—	0	1	—	0	—	6	58	1	5	197	
5 upwds	—	1	11	5	2	0	—	6	1	9	—	4	1	—	2	—	66	70	47	34	281	
Under 5	—	7	9	3	6	6	—	2	0	26	—	0	2	0	0	—	2	55	0	5	181	
5 upwds	—	0	8	4	1	0	—	4	4	6	—	2	2	1	1	—	73	43	48	31	298	

The houses in which these deaths took place were as under :—

That from SMALL POX—

The Infectious Diseases Hospital

That from MEASLES—

Row 54

Those from DIPHTHERIA—

The Lime Kilns, North Quay Row 116

Those from WHOOPING COUGH—

Cobholm Terrace	Belford Place
York Road	St. Nicholas' Terrace
Camden Road (2)	Row 34 (2)
Blackfriar's Road	Row 87
George Street	

Those from TYPHOID—

"Mariner's Compass," South Quay	High Street, Gorleston
Belford Place	Broad Row
Exmouth Road (2)	Row 24
Ames' Buildings	Row 36
Napoleon Place	Row 45
Nelson Road	Row 63½
St. Peter's Plain	Row 99
King Street	Row 127
Nelson Road, Gorleston	Row 129

Those from DIARRHŒA—

Gedge's Buildings	Harley Terrace
Tower Road	Alfred Place (2)
Nursery Place	Isaac's Buildings
Bessey's Buildings	Friars' Lane
Middle Market Road (2)	Stanley Road
South Howard Street	Broad Row
Tottenham Street (2)	Row 6
Redan Place	Row 12
Blackfriars' Road (2)	Row 31
Elizabeth Place	Row 34
Middlegate Street (2)	Row 36
Union Road (2)	Row 52

St. Paul's Terrace (2)	Row 93
Jury Street (2)	Row 112
Queen's Place	Row 121
Market Row	Row 128
Wellington Place	Row 139 (3)
West Nettle Hill	Row 143
Cobholm Terrace	Winifred Road, Southtown
Henry Place, Cobholm	Manby Road, „
Argyle Terrace (2)	Lowestoft Road, Gorleston
Coniston Square	Ship Inn, „
Lancaster Road (2)	Fen Street, „
Gage's Buildings	Bull's Lane, „
Nelson Road South	Cliff Hill, „
West Street	Beccles Road, „
Garden Lane	Bell's Road (3), „
Tower Arch	Church Road, „

In this place I may mention that in the sub-district of East Flegg, adjoining this borough, one death from DIPHTHERIA and four from DIARRHŒA took place last year, while in the rural portion of the sub-district of Gorleston, six deaths from DIPHTHERIA and one from FEVER occurred. In the latter sub-district it was the parish of Belton which suffered so much from Diphtheria. The outbreak occurred in June, was very smart, and many families were affected, in some of which the laundrying of linen from Yarmouth was being done. At my request precautions were taken, and no harm came to the owners of the Yarmouth linen, but the dependence for health one district has upon another was well illustrated. The coming County Health Officer will have no more important duty than studying the inter-communication of districts, and being ever on the alert to prevent the migration of infection with "the washing" and such articles of food and water supply as urban districts are usually dependent upon the rurals for.



SANITARY WORK.

NUISANCE REMOVAL.

Total number of nuisances attended to by Inspector	741
Remedied by Inspector's notice only ...	485
Referred to the Town Clerk for formal orders ...	256
(a) To cleanse, repair, or construct w.c's ...	66
(b) To re-construct and otherwise repair privies ...	49
(c) To construct new drains, to repair and cleanse old ones, and to trap and cleanse cesspools, &c.	45
(d) To close impure drinking water wells, and to procure wholesome supply ...	23
(e) To concrete and otherwise repair back yards, passages, &c. ...	22
(f) To remove manure, cleanse premises, &c. ...	13
(g) To remove encroachments on paths, &c. ...	11
(h) To put up water troughing ...	8
(i) To repair cellar flaps, &c. ...	8
(j) To whitewash and purify dwellings, cellars, &c.	7
(k) To abate smoke nuisances, &c. ...	4

No inconsiderable portion of the work indicated above was directed to the permanent sanitary improvement of property, and has therefore enhanced its intrinsic value.

Very much, however, had reference to nuisances of the ordinary recurrent character—those arising from the filthy habits of the people themselves. The procurement of cleanliness in the persons and dwellings of some of the most depraved and poverty stricken is a matter of difficulty. “Notices to cleanse,” more often than not, cause a change of residence merely, and a repetition of the nuisances elsewhere. Penalties are irrecoverable from such people. 'Tis not an easy problem to make people clean by Act of Parliament, but it seems desirable the Sanitary Authority should have power to imprison any who are wilfully and persistently dirty in their persons or homes. Sec. 46, P.H.A., seems to deal much too tenderly with the occupier, who is, in the majority of cases, the transgressor.

The question of accommodation at the Infectious Diseases Hospital has occupied your attention during the past year, and temporary improvements were made in the two large wards by partitioning them across so as to allow of two or three kinds of infectious diseases being treated in the building at the same time. You have had ample evidence of the real benefit such a place is to this town many times since its erection, and notably again last year in housing and isolating the Small Pox cases unfortunately infected from sea, vide page 8. Had you been without the Hospital, it is exceedingly likely an epidemic would have resulted, with what damage to the health of the inhabitants and detriment to their pecuniary interest no one can possibly estimate. The detached

wooden building, within the Hospital enclosure, has also been repaired, so that its two wards can be made use of in case of urgent need. In this latter building I receive the healthy members of any crew whose vessel arrives in harbour with infectious diseases on board. I allow none to separate, but cause them all to go there, carrying their baggage with them direct from the ship. Here they are all thoroughly cleansed in a warm bath, and dressed in clean clothes fresh from the hot disinfecting chamber. I also vaccinate all who will allow me, if it is a case of Small Pox they have been in contact with. Before they go to their homes, if they live in this town or neighbourhood, I take their names and addresses and request an immediate intimation if any fall ill. In marching the men to the Hospital, the Inspector of Nuisances avoid the busy thoroughfares as much as possible, but the situation of the building at the opposite end of the borough to that of the harbour is not at all convenient for port sanitary work. I believe you generally regard the Hospital now as only serving a temporary purpose, and I trust the time is not far distant when a more complete institution will be provided upon the high land at Gorleston, of ready access from the roadstead and entrance to the harbour.

By the adoption of a new code of Building Bye Laws, for so much of the borough as is situate outside the town walls and west of the river, you made, last July, a sanitary step considerably in advance. It is to be regretted the old town was omitted from such beneficent regulations, as jerry building will continue where its toleration is most

undesirable. The principal improvements new buildings will now have the advantage of, are the thorough cleansing, under-draining, and concreting of all unwholesome and damp sites, the ventilation of underfloor spaces, damp-proof courses in all walls, ample area in front and minimum yard space at the back, increasing in proportion to the height of the building, cross ventilation in each storey, the proper construction of w.c's, the ventilation of soil pipes, drains, &c., and their disconnection with the interior of dwellings, the erection of privies and dust bins with impermeable pits and at a proper distance from dwellings ; and in many other particulars do the new Bye Laws direct such things to be done as make for the wholesomeness of the dwellings and the good health of their inmates.



The proposed extension of the Boundaries of this Borough, so as to include the town-like district beyond the Bure, known as Runham Vauxhall, is a subject of immense sanitary import to this town, and I am glad to note the Boundary Commissioners report in favour of it. Dr. Airy, of the Local Government Board, in 1875, reported “ Just as
 “ Yarmouth has spread to the south-west into Suffolk, so it
 “ has spread to the north-west by a bridge over the Bure, and
 “ a large population essentially belonging to Yarmouth, is
 “ springing up on a flat point of alluvial land between the
 “ mouth of the Bure and the northern margin of Breydon
 “ water. The southern part of this region, containing the
 “ Vauxhall terminus of the Norwich and Yarmouth Railway,
 “ belongs to Southtown, in Suffolk, and its sanitary authority

“ is the Board of Guardians of the Mutford and Lothingland
 “ Incorporation ; the northern part, containing factories and
 “ crowded dwellings without proper water supply, is an outlier
 “ of the Parish of Runham in the East and West Flegg
 “ Incorporation, under the sanitary authority of the Board of
 “ Guardians of that union. Both parts are almost beyond the
 “ reach of their respective authorities, and the Borough of
 “ Yarmouth, which has the chief interest in their well-being,
 “ has no authority at all on that side of the Bure.” Further
 on in the same report, Dr. Airy adduces evidence to show
 that infectious disease has occurred in that insanitary locality
 and has made its appearance in Yarmouth very shortly after-
 wards, and hence the pertinency of his concluding remark in
 the paragraph above quoted.

Several nuisances you have prohibited in this town find
 location in Runham Vauxhall. Your objection to any
 extension of the private slaughter houses here, has led at
 least three Yarmouth butchers to obtain premises in which they
 slaughter at Runham. These places are without proper water
 supply, two with moderate drainage and another with no
 drainage at all other than into an awfully foul filthy stagnant
 ditch, from which almost sickening stench was arising when
 I last visited the place.

There are also nuisances of a very noisome character
 arising from the chemical and tar factories, the manure
 works, the horse slaughtering depot and pig killing premises,
 besides those arising from irregular arrangement of houses,
 —some standing high above the yards in their rear so that
 their front doors may open on a level with the river bank,
 others built so low in the muddy land as to allow the filth
 from the roadway to run into their living rooms—no public

water supply, no public lighting, no proper drains or sewers, no side paths and the roads not made up, in fact, not anything that would induce one to describe this locality otherwise than in a state of chaos as to sanitation.

I may mention here that in preparation for the Boundary Commissioners' Enquiry, which was held in the Town Hall on the 11th of last May, I on the 2nd of that month, had a census made of Southtown-in-Norfolk, and Runham Vauxhall, when there were found 143 houses of which 7 were unoccupied; and of inhabitants 326 males, and 331 females, *i.e.* a population of 657 persons. As a family was that day moving into the Vauxhall Tavern from outside the district, we may with reason assume the inhabitants of the whole hamlet numbered 663 souls. There were four houses building then, but, apparently, in consequence of the new building bye-laws now in operation in this borough, and the probability of an enlargement of our boundaries and jurisdiction in the near future, speculative building is proceeding apace near the Vauxhall Station at the present time.

As to the re-arranging of the boundary of the parish of Gorleston, and its inclusion in the union of Great Yarmouth and the county of Norfolk, the Boundary Commissioners' Report represents the agreement of all public authorities interested. Only in relation to Runham Vauxhall is there any difference of opinion. The Commissioners recommend that as much of this outlier of the parish of Runham as is already included within the bounds of the Parliamentary Borough of Great Yarmouth, should be added to this borough for every other purpose. This arrangement would cut in halves the Runham outlier, but would do so in such a direction as to

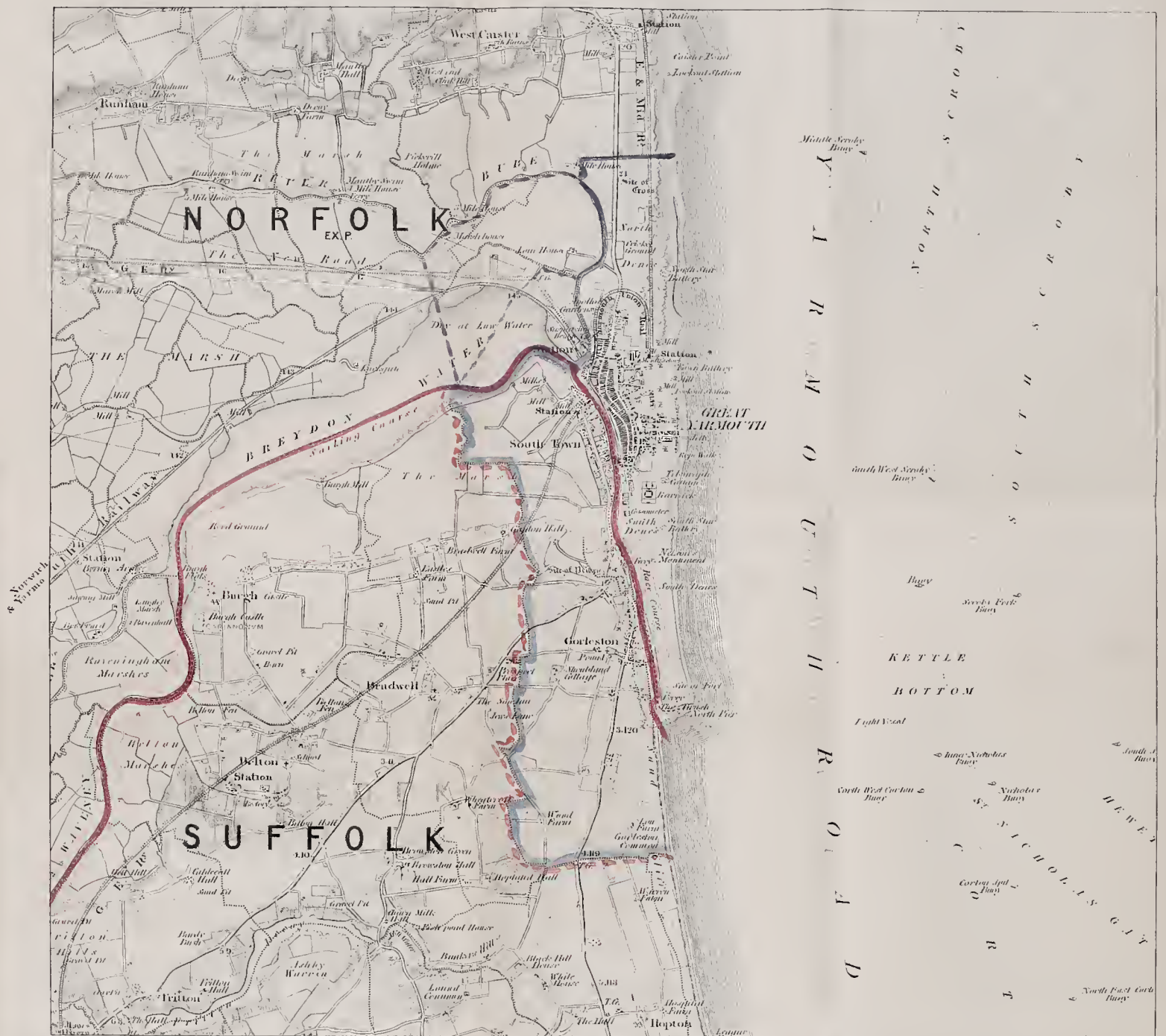
lay all the present dwellings and factories to Yarmouth, and leave to Runham parish only the marshes,—the worthless portion, in fact, from the rateable point of view,—hence the Flegg Guardians' reluctance to part with any. And besides the boundary line so placed would lie so very near us, that another unsavoury suburban district would arise within smelling distance of Yarmouth, and yet outside our area, to be almost as inimical to our well-being as the present Runham Vauxhall is. Bearing in mind the transference of slaughter and other nuisances there from this town, and the rapid increase of buildings, my opinion is, we should ask for the whole of Runham Vauxhall, and as much of the Acle outlier adjoining as will enable our boundary to extend to the river Bure, so as to include all the peninsula lying between that river and Breydon water, taking our frontier line across the isthmus in its narrowest part, *i.e.*, just to the westward of the “the old ashen tree.”

By the accompanying map, I endeavour to illustrate my meaning. The continuous blue line indicates the present Municipal borough and Urban Sanitary district, the dotted blue line shows the extension of those areas the Commissioners recommend, and the dotted violet line,—crossing Breydon water, the narrow neck of land between that water and the river Bure, and down that river to the present borough boundary,—includes the enlarged area over which I am anxious you should obtain Sanitary and Municipal control. Upon this subject the Commissioners' report contain the following observations.

“ The authorities of the borough and some of the owners
 “ and inhabitants of Runham Vauxhall are strongly in favour
 “ of including that district in the Municipal Borough.

GREAT YARMOUTH. B.

Scale of one inch to a Statute Mile.



REFERENCE.

BOROUGH AND URBAN SANITARY DISTRICT BOUNDARY	PRESENT	- Shown by firm Blue line	- thus	
	PROPOSED	- Shown by Blue dashes	- "	
COUNTY BOUNDARY	PRESENT	- Shown by firm Red line	- "	
	PROPOSED	- Shown by Red dashes	- "	
Extension of Boundary recommended by M.O.H.				

Rob. Owen Jones

Zincographed at the Ordnance Survey Office, Southampton, 1889.

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“ This is opposed by the firms whose manufactories are
 “ situated there, and also by the Guardians of the East and
 “ West Flegg Incorporation, who have of late years profited
 “ by the growth of the district in rateable value.

“ Suggestions have been put forward for avoiding such
 “ questions in future, and providing for the extension of the
 “ Boroughs,* by including the whole of Runham detached, and
 “ of Acle detached up to the right bank of the Bure. These
 “ proposals are worthy of consideration, but as the Parish of
 “ Acle is in the Union of Blofield, the matter seems rather
 “ beyond the scope of their duties, and the Commissioners
 “ have not altered their original scheme, and only refer to the
 “ proposed extension as a possible improvement on it.”

“ The Commissioners recommend—

“ 1. The transfer of so much of the Parish of Great
 “ Yarmouth as is in East Suffolk, and so much of the Parish
 “ of Gorleston as is in East Suffolk, to the County of Norfolk.

“ 2. The transfer of the Parish of Gorleston from the
 “ union of Mutford and Lothingland to a union with Great
 “ Yarmouth.”

“ 3. As changes incidental to the above change, the
 “ Commissioners recommend—

“ That the Municipal Borough of Great Yarmouth be
 “ extended to the boundary of the Parliamentary Borough;
 “ and

“ That such part of Runham Parish as is within the
 “ Parliamentary Borough, and such part of Gorleston Parish
 “ as is north of the river, should be amalgamated with the
 “ Parish of Great Yarmouth; and

*Evidently referring to Parliamentary and Municipal.

“ That such part of Great Yarmouth Parish as is west
“ of the river Yare should be added to Gorleston Parish.”

I have referred to this matter somewhat at length, as you and the adjoining County Councils will shortly have it under consideration, being fully assured of its great importance in relation to the public health of this town, and also the direct and immediate benefit which would accrue to the inhabitants of Runham Vauxhall, in having their sanitation carried out by an enlightened and energetic Sanitary Authority.

During the last few years you have given considerable attention to the possible pollutions of Ormesby Broad, whence our public water supply is drawn. In consequence of your action, those in authority upon the spot were roused to take some precautions on our behalf, but inasmuch as the inhabitants of the Fleggs are not dependent upon the Broads for their drinking water, we could hardly expect their Sanitary Authority to incur much expense, which obviously must be in the interest of this Borough only, and especially as we paid nothing to their Sanitary rate. Now, however, under Sec. 14 of the Local Government Act of last year, you have power to contribute “ towards the cost of any prosecution ” the rural Sanitary Authority may institute, under the Rivers Pollution Prevention Act, 1876, for the protection of the waters of the Broads from contamination. Or,—and perhaps this would be your best course of action,—you may ask the Local Government Board to “ constitute a joint committee,” to administer the Act just named, over the area wherein lies the sources of our drinking water supply. Acting as the

County Council of this borough, I imagine you would suggest a portion of the Committee, while the Norfolk County Council would do likewise, and thus, undoubtedly, the several interests involved would find representation there. I am sure it is not necessary I should say anything here to urge the importance of a pure water supply upon your attention, you are fully alive to that, but I would impress upon you the desirability of an early recourse to the recent enactments for insuring so vital a desideratum.

In consequence of a large quantity of semi-putrid herring being sold at the Fishwharf last October and November, for the purpose of curing, you considered the advisability of appointing an Inspector, specially charged with the duty of examining the fish, as delivered there during the herring season, with full authority to seize any he found unwholesome, and you delegated a committee to report. I am told by persons in the trade that there are ways and means of making even a stinking herring good food, and that all fresh fish are not necessarily wholesome. It seems quite clear that an expert Inspector must be one well versed in "the tricks of the trade," and one whose opinion is generally regarded as sound and just. I understand there is a widespread desire, among the fish-merchants and others using the wharf, that such a person should be appointed, for it is now generally recognised that although a vendor of inferior fish may obtain an immediate profit, the discredit his consignment brings upon the market operates to the prejudice of the whole trade. I trust the outcome of your Committee's deliberations will be the appointment of an Inspector before the next fishing is upon us.



PORT SANITARY AFFAIRS.

Although in former reports I have invited your attention to matters associated with Port Sanitation, this is the first occasion on which I am required to formally represent to you such things, as I am of opinion, would preserve and improve the health of our sailors and fishermen when afloat, and the efficient control of such infectious diseases as may be brought, or arise within, the area of your jurisdiction as the GREAT YARMOUTH PORT SANITARY AUTHORITY.

On the 1st January, 1889, there were upon the register, at the Great Yarmouth Custom House, 65 merchant vessels and 589 fishing vessels, in all 654, which, for our present purpose, we must regard as marine dwellings. The register also indicated, as populating these vessels, 240 merchant seamen, about 3,700 fishermen, and probably 530 boys, in all 4,470 persons. Included among the fishermen and boys, are many who merely go the herring voyage, and at other times are employed on shore, the exact number of these is difficult to obtain, but the majority are fishing all the year round. To the above

total, which may be regarded as our native marine population, should be added a further number, probably quite impossible to ascertain accurately, representing the crews of British and foreign vessels trading to this port, and the crews of the large quantity of Scotch fishing boats, which come up here and join in our autumn fishing. In the middle of last October, I am assured our marine population might have been fairly estimated at 7,000 souls. The number of vessels arriving here during the year from home and foreign ports may give some idea of the importance or otherwise of our sea-borne trade, but such figures afford really no indication of the number of strange sailors visiting this port, or the sanitary supervision such vessels should actually have bestowed upon them. The arrival of every vessel is noted by the Customs Officers and counted as a separate vessel arriving, whether in fact that vessel enters the harbour only once in the year, or is a weekly trader here. For instance, the Newcastle, the Hull, and the London steamers are each entered in the Custom House Returns 52 times each year, and are totaled as 156 vessels arriving coast-wise. To credit each of these vessels with a crew of 10 men, would be to fall into the error of assuming that 1,560 sailors had thus visited this port, whereas in point of fact we have but 3 vessels and, say, 30 men to deal with. Therefore, I forbear to give figures so liable to be misunderstood. I might, however, mention that during 1888 there were 10 vessels added to the Custom House Register and 45 taken off, thus showing a decrease of 35.

During last year there were reported at the Yarmouth Custom House 67 deaths at sea, viz., 60 of fishermen and

7 of merchant seamen. Of the fishermen, only 7 bodies were landed, inquests held, and the deaths enrolled with the borough's mortality. All the rest were lost in the ocean, whither they had by some mischance fallen and drowned. This terrible waste of life among the fishermen is truly appalling, as so much of it occurs from carelessness and foolhardiness. The ferrying of fish in a rough sea, from the trawlers to the steamer for conveyance to Billingsgate, is exceedingly dangerous work, and although the men are urged to wear cork belts when so engaged, with which most of the vessels are supplied, it is very rarely they do so. The men have a prejudice in preparing for a disaster that may not happen; and another very important reason is the difficulty with which the men work when encumbered with the cork belt. Getting the trunks of fish on board the steamer from a small boat, plunging hither and thither with every billow and continually dashing against the steamer's side, is not easy work for the men in their ordinary garb, but add to this a belt of cork across the stomach and under the arms, and the men's ability to stoop or lift is much interfered with. Apparently something must be devised for floating the men, should they get cast into the sea, other than cork belts. Cork jackets naturally suggest themselves, and providing they were waterproof and the cork so arranged as to leave the sides of the chest and stomach free, so as not to impede the men in their work, no doubt they would wear them. I am told by a firm of fishermen's clothiers in Yarmouth that such a jacket or overall could be made, and, with the very best cork, would not be a cumbersome garment.

I have already mentioned the out-break of SMALL POX we had in Yarmouth last spring, in consequence of the disease being brought here from the fishing fleet at sea. Some considerable amount of "Urban" Sanitary work thus arose from the "Port," and in this place it seems only necessary I should refer to the work done afloat. Our course of action has been as follows:—Immediate upon a vessel arriving with a sick man on board, if the skipper or Customs Officer have the slightest doubt as to the nature of his illness, the vessel is detained at the observation moorings, and the matter is reported to me. Should I find it a case of infectious disorder, I cause the sick man to be immediately removed to the Infectious Diseases Hospital in our Hospital Cab, and the Inspector of Nuisances conducts the rest of the crew thither for cleansing, &c., as soon as they have stowed up and helped the Inspector to set in operation the fumigation in the cabins and hold of the vessel, closing down every aperture so that no fumes can escape. Not till the next day are the hatches removed, then wind sails are rigged up, so as to send a stiff breeze through every part of the vessel below decks. This is allowed to go on for twenty-four hours, or much longer, if the wind is not blowing fresh. Usually we have a plentiful supply, and that straight off the ocean with plenty of ozone in it, is a very good and cheap purifier. On the third day, if I then think the airing has been sufficient, the crew return to the vessel, fetch all provisions on shore, burn the old bed mattresses, empty all drinking water tanks, and cleanse the interior of the ship from end to end, using plenty of disinfectants in the process. I also have disinfectants poured down behind the linings into the bilge and the vessel then pumped out,

rinsing the bilges several times with clean water and disinfectants. The cabin I cause to be re-painted, and the bunks, especially the one in which the sick man had laid, to be lime-whitened thoroughly. I direct the insides of the water tanks to be thoroughly cleaned, and those of wood to be charred, and those of iron to be lime-whitened; and the Inspector of Nuisances or myself see that this work is done.

INFECTED VESSELS ARRIVING IN PORT DURING 1888.

On Feb 22nd.	Smack "Hero," LO, 146.	One case Typhoid.	Had been sent from sea to London Hospital.
On March 13th.	Mission Vessel "Euston," LO, 401.	Two cases Small Pox.	Removed to our Infec- tious Diseases Hospital
On April 16th.	Smack "Pioneer," YH, 531.	One case Small Pox.	Removed to our Infec- tious Diseases Hospital

On June 15th I had information from sea that a smack, the "Mizpah," DH, 156, of Brixham, was fishing with the "Short Blue" fleet, and had one of her crew ill on board with SMALL POX. This information I sent on to the Brixham Sanitary Authority, and also to Messrs. Hewett & Co., the owners of the "Short Blue" fleet, who immediately gave orders for their steam carriers to take no fish of the "Mizpah," and consequently that vessel was obliged to leave the fleet and take her own fish home. I was told that when she left the fleet another of her crew was down with the disease.

On three occasions I was called by the Customs Officers to sick men on board vessels in the harbour, only to find

the first a case of Shingles, the second Syphilis in its eruptive stage, and the third Epilepsy. I also, at their request, saw two dead bodies on shipboard, which they imagined might have died of fever, but in neither case did the statements of the crews bear out such a theory. I inspected three or four other dead bodies brought in from sea at the request of the police and others, and referred them to the Coroner, who held inquests on all the bodies.

At this point I may urge the great need there exists at Gorleston for a mortuary, where the dead bodies brought in from sea, and those found in the river, might be removed to. At present any shed, or warehouse, has to be made use of, and in such places, with very little light and no convenience for the purpose, an accurate *post mortem* examination is impossible. The Coroner and Jury have asked for a properly appointed mortuary and inquest room, and I have, in a former report, strongly advised you to erect such a building. I again testify to the great need there is in Gorleston for a mortuary, and exhort you to provide one there very speedily.

An intolerable nuisance arises during every autumn herring fishing from the filthy putrid bilge water the Scotch boats pump overboard into the harbour. Our Yarmouth herring boats are generally supplied with salt, and as the herrings are caught they are sprinkled with this to ensure their keeping a day or two, if the boat is likely to be thus long before returning to the harbour. The Scotch boats, however, never take salt, preferring to bring their fish to

market fresh every day if possible. The drainage from the unsalted fish settles down in the bottom of the boat and mingles with the bilge water, which soon becomes horribly offensive. Every Saturday, if not oftener, the Scotch boats get "washed down" and "pumped out" while at their moorings in the harbour, and should the wind be anywhere from the east'ard, the stench is wafted across Gorleston, much to the annoyance and disgust of the people. I consider the stench as exceedingly likely to injure the health of weakly persons inhaling it, and advise you to take steps to stop the nuisance occurring in the future.

Only in consequence of complaint has any vessel yet been visited. I would, however, remind you sec. 92, P.H.A., contemplates you directing systematic inspections "from time to time" of all vessels.

For the marked consideration and confidence I have ever had of you, and the cordial co-operation of your officers, I beg to express my sincere thanks,

And am, Gentlemen,

Your obedient servant,

JOHN BATELY, M.D.

N. S.



